### **ENVIRONMENTAL CHEMISTS**

Date of Report: 07/22/99 Date Received: 07/15/99

Project: Metro Self Monitor, PO# M62252

Date Samples Extracted: 07/20/99 Date Extracts Analyzed: 07/20/99

## RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR CHROMIUM, COPPER, NICKEL, ZINC USING METHOD 6010

# Samples Processed Using Method 3005A

Results Reported as mg/L (ppm)

Sample ID		<u>Chromi</u>	<u>um</u>	Copper	<u>Nickel</u>	<u>Zinc</u>
M62252		0.32		0.16	0.23	<0.05
Method Blan	nk	< 0.05		< 0.05	< 0.05	< 0.05

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Date of Report: 07/22/99 Date Received: 07/15/99

Project: Metro Self Monitor, PO# M62252

### QUALITY ASSURANCE RESULTS FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 907005-01 (Duplicate)

					Relativ	е	
		Reporting	Sample	Duplica	te Percen	t Acceptar	ice
	Analyte	Units	Result	Result	Differen	ce Criteri	a
Ţ	Chromium	mg/L (ppm)	0.46	0.54	16	0-20	100
	Copper	mg/L (ppm)	0.44	0.42	5	0-20	
	Nickel	mg/L (ppm)	0.49	0.55	12	0-20	
	Zinc	mg/L (ppm)	0.06	0.08	29a	0-20	

Laboratory Code: (Matrix Spike)

	Reporting	Spike	Sample	% Recovery	% Recovery	Acceptance	
Analyte	Units	Level	Result	MS	MSD	Criteria	RPD
Chromium	mg/L (ppm)	5	0.46	84	88	80-120	5
Copper	mg/L (ppm)	5	0.44	81	89	80-120	9
Nickel	mg/L (ppm)	10	0.49	89	86	80-120	3
Zinc	mg/L (ppm)	5	0.06	86	90	80-120	5

Laboratory Code: Laboratory Control Sample

	Reporting	Spike	% Recove	ery % Recov	ery Acceptance	e
Analyte	Units	Level	LCS	LCSD	Criteria	RPD
Chromium	mg/L (ppm)	5	109	102	80-120	7
Copper	mg/L (ppm)	5	114	102	80-120	11
Nickel	mg/L (ppm)	10	106	106	80-120	0
Zinc	mg/L (ppm)	5	108	102	80-120	6

a - The analyte was detected at a level less than five times the detection limit. The RPD results may not provide reliable information on the variability of the analysis.

FRIEDMAN & BRUYA, INC. 3012 16th Avenue West Seattle, WA 98119-2029 (206) 285-8282

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FORMS/COC

## SAMPLE CHAIN OF CUSTODY

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06/24/99

### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S.

3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

July 22, 1999

### **DUPLICATE COPY**

### **INVOICE #99ACU0722-1**

Accounts Payable Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

RE: Project Metro Self Monitor, PO# M62252: Results of testing requested by Gerry Thompson for material submitted on July 15, 1999.

FEDERAL TAX ID (b) (6)

### **ENVIRONMENTAL CHEMISTS**

James E. Bruya, Ph.D. Charlene Jensen, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S.

3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

July 22, 1999

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford St. Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on July 15, 1999 from your Metro Self Monitor, PO# M62252 project. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Manuel Marti Project Manager

Enclosures ACU0722R.DOC